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(54) **Supplemental seal for the chordal hinge seals in a gas turbine**

(57) In a gas turbine having a chordal hinge seal between an inner rail (52) of each nozzle segment and an annular axially facing sealing surface of a nozzle support ring, a supplemental seal is disposed between the support ring and inner band (52) of the nozzle segment on a lower pressure side of the chordal hinge seal. The supplemental seal includes a flexible sheet metal seal having a margin (78) secured in a groove (74) of the inner rail (52) of the nozzle segments with a bent-over edge (80) to form a seal therewith. The opposite margin of the seal has an edge which bears against the axially opposed sealing surface of the nozzle support ring. Leakage flow past the chordal hinge seal exerts sealing pressure against the preloaded flexible seal to maintain the seal between the sealing surfaces of the support ring and segments. The supplemental seal extends circumferentially and spans the joint between adjacent nozzle segments.

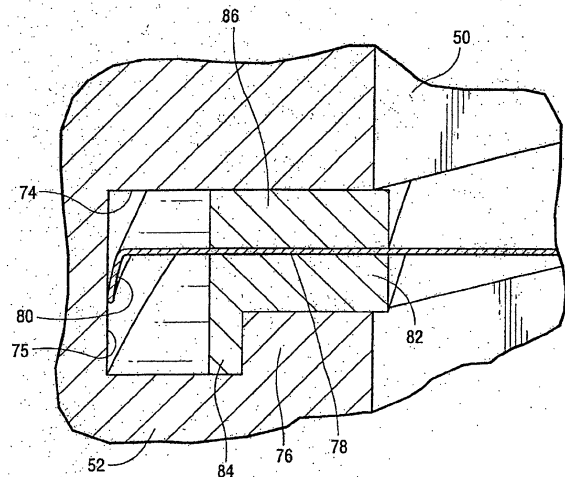


Fig. 7



European Patent
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EUROPEAN SEARCH REPORT

Application Number
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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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X	US 6 287 091 B1 (SVIHLA GARY R ET AL) 11 September 2001 (2001-09-11) * figure 3 * ---	1-3	
Y	* column 2, line 19 - line 45 * ---	6-9	
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A	EP 0 501 700 A (GEN ELECTRIC) 2 September 1992 (1992-09-02) * figure 3 * ---	1-10	
A	EP 0 731 254 A (SOLAR TURBINES INC) 11 September 1996 (1996-09-11) * figure 2 * * column 3, line 45 - column 5, line 40 * ---	1-10	TECHNICAL FIELDS SEARCHED (Int.Cl.7)
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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 19 February 2004	Examiner Teissier, D
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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